

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
31 March 2005 (31.03.2005)

PCT

(10) International Publication Number
WO 2005/029031 A3

(51) International Patent Classification⁷: **G01N 27/26**

(21) International Application Number:
PCT/US2004/024788

(22) International Filing Date: 2 August 2004 (02.08.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/492,061 1 August 2003 (01.08.2003) US

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(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,

GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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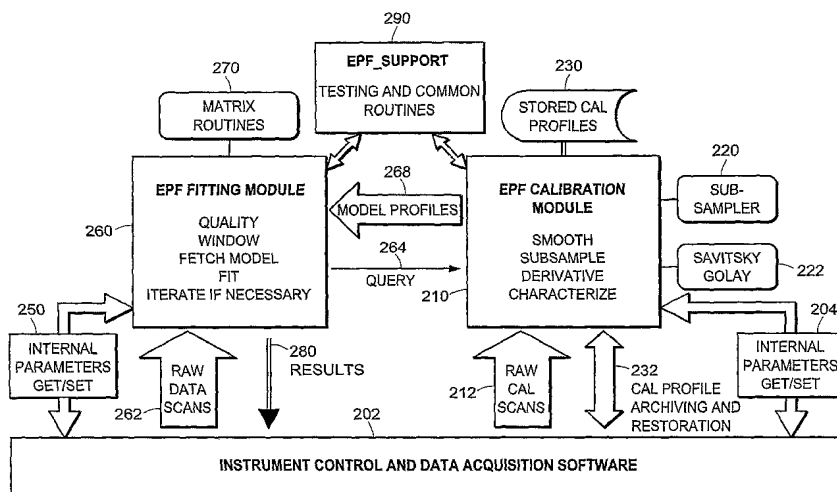
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- of inventorship (Rule 4.17(iv)) for US only

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

[Continued on next page]

(54) Title: METHOD AND APPARATUS FOR QUANTITATING SURFACE-BINDING OPTICAL RESONANCE PROFILES



(57) Abstract: Empirical profile curve fits (260) are used to quantitative the surface optical resonance profiles (268) using two EPF stages of calibration and fit. The calibration surface binding optical resonance scan is obtained with fine angle or wavelength spacing over a range including the full resonance profiles for all regions. The main calibration module (210) together with the first derivative curves and the diagnostic information generates each profile region of interest. The individual ROI scans are used for measurements of the resonance shifts relative to the empirical profile. In a preferred embodiment the instrument control and data acquisition software sets the internal parameters in the EPT calibration module and sends the raw data from a calibration scan to the EPF Calibration module which funnels the data through a sub sampler and a Savitsky-Golan smoothing routine before taking derivatives and characterizing the data to create the empirical profile for the chip (202).

WO 2005/029031 A3



(88) Date of publication of the international search report:

17 November 2005

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